

FILE 'HCAPLUS' ENTERED AT 15:42:55 ON 14 MAY 2009

L1 90980 S GLYCOSAMINOGLYCAN OR HEPARIN OR HYALURON? OR DERMATAN  
L2 819295 S (AMINO ACID) OR LEUCINE OR LYSINE OR CYSTEINE  
L3 67430 S ASTHMA OR BRONCHITIS OR (CYSTIC FIBROSIS) OR COPD OR (CHRONIC  
L4 126 S L1 AND L2 AND L3  
L5 54 S L4 AND (PY<2004 OR AY<2004 OR PRY<2004)

FILE 'STNGUIDE' ENTERED AT 15:43:30 ON 14 MAY 2009

FILE 'HCAPLUS' ENTERED AT 15:44:05 ON 14 MAY 2009

L6 25742 S INHALER OR INHALENT OR (DRY POWDER) OR INHALED OR INHALABLE  
L7 1 S L5 AND L6

FILE 'HCAPLUS' ENTERED AT 15:44:57 ON 14 MAY 2009

L8 12603 S MUCUS OR MUCOACTIVE  
L9 3 S L5 AND L8

FILE 'HCAPLUS' ENTERED AT 15:48:17 ON 14 MAY 2009

L10 299147 S LEUCINE OR LYSINE OR CYSTEINE  
L11 27 S L5 AND L10

=> file hcaplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.88	0.88

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FILE COVERS 1907 - 14 May 2009 VOL 150 ISS 20  
 FILE LAST UPDATED: 13 May 2009 (20090513/ED)  
 REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2009  
 USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2009

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s glycosaminoglycan or heparin or hyaluron? or dermatan

```

      12054 GLYCOSAMINOGLYCAN
      53788 HEPARIN
      32297 HYALURON?
      5056  DERMATAN
L1      90980 GLYCOSAMINOGLYCAN OR HEPARIN OR HYALURON? OR DERMATAN

```

=> s (amino acid) or leucine or lysine or cysteine

```

      1219862 AMINO
      4826619 ACID
      616011 AMINO ACID
              (AMINO(W)ACID)
      101829 LEUCINE
      120003 LYSINE
      119714 CYSTEINE
L2      819295 (AMINO ACID) OR LEUCINE OR LYSINE OR CYSTEINE

```

=> s asthma or bronchitis or (cystic fibrosis) or COPD or (chronic obstructive pulmonary disease) or bronchiectasis

```

      44127 ASTHMA
      8110  BRONCHITIS
      19601 CYSTIC

```

48313 FIBROSIS  
 14861 CYSTIC FIBROSIS  
       (CYSTIC(W)FIBROSIS)  
 4726 COPD  
 260972 CHRONIC  
 17024 OBSTRUCTIVE  
 109125 PULMONARY  
 1150280 DISEASE  
       9461 CHRONIC OBSTRUCTIVE PULMONARY DISEASE  
           (CHRONIC(W)OBSTRUCTIVE(W)PULMONARY(W)DISEASE)  
       921 BRONCHIECTASIS  
 L3      67430 ASTHMA OR BRONCHITIS OR (CYSTIC FIBROSIS) OR COPD OR (CHRONIC  
           OBSTRUCTIVE PULMONARY DISEASE) OR BRONCHIECTASIS

=> s l1 and l2 and l3

L4          126 L1 AND L2 AND L3

=> s l4 and (PY<2004 or AY<2004 or PRY<2004)

      24035465 PY<2004  
       4798798 AY<2004  
       4271441 PRY<2004  
 L5          54 L4 AND (PY<2004 OR AY<2004 OR PRY<2004)

=> file stnguide

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	2.85	3.73

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 LAST RELOADED: May 11, 2009 (20090511/UP).

=> file hcaplus

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.07	3.80

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reclassification data for the third quarter of 2008.

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This file contains CAS Registry Numbers for easy and accurate  
substance identification.

=> s inhaler or inhalent or (dry powder) or inhaled or inhalable

```

      2657 INHALER
        2 INHALENT
    517983 DRY
    631737 POWDER
      6208 DRY POWDER
          (DRY(W)POWDER)
    17477 INHALED
      1328 INHALABLE
L6      25742 INHALER OR INHALENT OR (DRY POWDER) OR INHALED OR INHALABLE
```

=> s 15 and 16

```
L7      1 L5 AND L6
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=> file stnguide

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.85	6.65

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.07	6.72

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reclassification data for the third quarter of 2008.

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This file contains CAS Registry Numbers for easy and accurate  
substance identification.

=> s mucus or mucoactive

12561 MUCUS  
70 MUCOACTIVE  
L8 12603 MUCUS OR MUCOACTIVE

=> s 15 and 18

L9 3 L5 AND L8

=> file stnguide

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.85	9.57

FILE 'STNGUIDE' ENTERED AT 15:44:59 ON 14 MAY 2009  
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FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: May 11, 2009 (20090511/UP).

=> d 19 1-3 ti abs bib

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

L9 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Methods and compounds for the treatment of mucus hypersecretion  
by inhibiting mucus secretion using compounds having targeting  
and translocating modified light chain of clostridial neurotoxin  
AB A method of treating mucus hypersecretion, the causative factor  
in chronic obstructive pulmonary  
disease (COPD), asthma and other clin.  
conditions involving COPD, comprises administering a compound that  
inhibits exocytosis in mucus secreting cells or neurons that  
control or direct mucus secretion. Also described is a compound,  
for use in the treatment of hypersecretion of mucus, which  
inhibits mucus secretion by inhibiting mucus secretion  
by mucus secreting cells, and/or inhibiting neurotransmitter  
release from neuronal cells controlling or directing mucus  
secretion. The compound comprises: (a) a light chain (L-chain) or L-chain

fragment of a clostridial neurotoxin, which L-chain or L-chain fragment includes the active proteolytic enzyme domain of the L-chain; (b) a targeting domain that binds to a target cell selected from the group consisting of (i) a mucus secreting cell, and (ii) a neuronal cell controlling or directing mucus secretion; and (c) a translocating domain that translocates the L-chain or L-chain fragment into the target cell. Substance P, as the targeting domain, was conjugated to clostridial neurotoxin fragment LHN/A.

AN 2008:159937 HCAPLUS <<LOGINID::20090514>>

DN 148:230138

TI Methods and compounds for the treatment of mucus hypersecretion by inhibiting mucus secretion using compounds having targeting and translocating modified light chain of clostridial neurotoxin

IN Quinn, Conrad Padraig; Foster, Keith Alan; Chaddock, John

PA Syntaxin Ltd., UK

SO U.S. Pat. Appl. Publ., 80pp., Cont.-in-part of U.S. Ser. No. 518,213.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20080032928	A1	20080207	US 2007-806496	20070531 <--
	WO 2000010598	A2	20000302	WO 1999-GB2806	19990825 <--
	WO 2000010598	A3	20000615		
	W: AU, CA, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6632440	B1	20031014	US 2001-763669	20010529 <--
	US 20040071736	A1	20040415	US 2003-633698	20030805 <--
	US 20070010447	A1	20070111	US 2006-518213	20060911 <--
	US 20080249019	A1	20081009	US 2008-101749	20080411 <--
PRAI	GB 1998-18548	A	19980825	<--	
	WO 1999-GB2806	W	19990825	<--	
	US 2001-763669	A2	20010529	<--	
	US 2003-633698	B1	20030805	<--	
	US 2006-518213	A2	20060911		
	US 2007-806496	A2	20070531		

L9 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2009 ACS on STN

TI Pharmaceutical compositions

AB The present invention relates to pharmaceutical compns. which are useful in the treatment of diseases where excess mucus is present in the respiratory tract, such as cystic fibrosis and chronic obstructive pulmonary disease

. In particular, the invention relates to pharmaceutical compns. for administration by pulmonary inhalation. Thus, in a first aspect of the present invention, a composition for assisting mucus clearance is provided, the composition comprising one or more mucoactive agents for reducing crosslinking within the mucus; for diluting the mucus; and/or for digesting naked DNA and cell debris within the mucus. Preferably, the composition according to the invention further has the effect of reducing inflammation. In one embodiment of the present invention, the composition comprises one or more mucoactive agents together with an addnl. active agent such as an anti-inflammatory agent. In a particularly preferred embodiment of the present invention, the mucoactive agent for reducing crosslinking is a glycosaminoglycan such as heparin. A further group of mucoactive agents capable of assisting mucus clearance are amino acids. Acetylcysteine (NAC) and the acetylcysteine salt derivative Nacystelyn (or NAL) are also effective mucoactive agents which

are suitable for inclusion in the compns. of the present invention.

AN 2005:259852 HCAPLUS <<LOGINID::20090514>>  
DN 142:329858  
TI Pharmaceutical compositions  
IN Morton, David; Ganderton, David; Staniforth, John; Kamlag, Yorick  
PA Vectura Limited, UK  
SO PCT Int. Appl., 60 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005025540	A2	20050324	WO 2004-GB3932	20040915 <--
	WO 2005025540	A3	20050616		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	AU 2004271778	A1	20050324	AU 2004-271778	20040915 <--
	CA 2538399	A1	20050324	CA 2004-2538399	20040915 <--
	EP 1663151	A2	20060607	EP 2004-768478	20040915 <--
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR			
	BR 2004014425	A	20061114	BR 2004-14425	20040915 <--
	CN 1874757	A	20061206	CN 2004-80032679	20040915 <--
	JP 2007505830	T	20070315	JP 2006-525902	20040915 <--
	SG 146649	A1	20081030	SG 2008-6902	20040915 <--
	KR 2006082865	A	20060719	KR 2006-705166	20060314 <--
	MX 2006002952	A	20060920	MX 2006-2952	20060315 <--
	ZA 2006002748	A	20070530	ZA 2006-2748	20060404 <--
	IN 2006CN01269	A	20070629	IN 2006-CN1269	20060413 <--
	US 20070065373	A1	20070322	US 2006-571184	20060717 <--
PRAI	GB 2003-21611	A	20030915	<--	
	GB 2003-27723	A	20031128	<--	
	WO 2004-GB3932	W	20040915		

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Bronchial mucus hypersecretion in acute quadriplegia.  
Macromolecular yields and glycoconjugate composition  
AB In acute quadriplegia the authors have noted that about 1 in 5 patients develops unexplained production of excessive and tenacious bronchial mucus. Spontaneous recovery from mucus hypersecretion usually occurs within weeks to months. Mucus samples collected from 12 patients were abnormal. Macromol. contents of single aspirates yielded as much as 500 mg. Anal. ultracentrifuge anal. showed the mucus to contain considerable epithelial glycoprotein (GP) of typical buoyant d.; its amino acid and carbohydrate compns. were characteristic of the GP from hypersecretory bronchial mucus such as in chronic bronchitis and cystic fibrosis. In five patients studied after recovery from hypersecretion, there tended to be relatively less GP. The mucus

samples contained a high-d. glycoconjugate (GC): this had sugars of GP but also reacted pos. with a monoclonal antibody to keratan sulfate. Its amino acid composition was different from that of GP: threonine was lower and glycine was higher than in GP. In mucus from one patient who died, chondroitin sulfate ABC and hyaluronic acid were identified as well. This suggests proteoglycans are involved in the pathophysiol. of mucus hypersecretion. The sudden onset and spontaneous recovery of hypersecretion suggests that it is not due to gland hypertrophy. The authors speculate that in acute quadriplegia it is due to disturbed neuronal control of bronchial mucous gland secretion, perhaps related to initial disappearance and later reappearance of peripheral sympathetic nervous system tone.

AN 1991:245405 HCAPLUS <<LOGINID::20090514>>  
 DN 114:245405  
 OREF 114:41397a,41400a  
 TI Bronchial mucus hypersecretion in acute quadriplegia.  
 Macromolecular yields and glycoconjugate composition  
 AU Bhaskar, K. Ramakrishnan; Brown, Robert; O'Sullivan, Donna Defeudis;  
 Melia, Stephen; Duggan, Marie; Reid, Lynne  
 CS Dep. Pathol., Child. Hosp., Boston, MA, USA  
 SO American Review of Respiratory Disease (1991), 143(3), 640-8  
 CODEN: ARDSBL; ISSN: 0003-0805  
 DT Journal  
 LA English

=> d his

(FILE 'HOME' ENTERED AT 15:40:41 ON 14 MAY 2009)

FILE 'HCAPLUS' ENTERED AT 15:42:55 ON 14 MAY 2009

L1 90980 S GLYCOSAMINOGLYCAN OR HEPARIN OR HYALURON? OR DERMATAN  
 L2 819295 S (AMINO ACID) OR LEUCINE OR LYSINE OR CYSTEINE  
 L3 67430 S ASTHMA OR BRONCHITIS OR (CYSTIC FIBROSIS) OR COPD OR (CHRONIC  
 L4 126 S L1 AND L2 AND L3  
 L5 54 S L4 AND (PY<2004 OR AY<2004 OR PRY<2004)

FILE 'STNGUIDE' ENTERED AT 15:43:30 ON 14 MAY 2009

FILE 'HCAPLUS' ENTERED AT 15:44:05 ON 14 MAY 2009

L6 25742 S INHALER OR INHALENT OR (DRY POWDER) OR INHALED OR INHALABLE  
 L7 1 S L5 AND L6

FILE 'STNGUIDE' ENTERED AT 15:44:07 ON 14 MAY 2009

FILE 'HCAPLUS' ENTERED AT 15:44:57 ON 14 MAY 2009

L8 12603 S MUCUS OR MUCOACTIVE  
 L9 3 S L5 AND L8

FILE 'STNGUIDE' ENTERED AT 15:44:59 ON 14 MAY 2009

FILE 'HCAPLUS' ENTERED AT 15:45:12 ON 14 MAY 2009

FILE 'STNGUIDE' ENTERED AT 15:45:12 ON 14 MAY 2009

=> log hold

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.07	21.56
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL



	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-2.46

SESSION WILL BE HELD FOR 120 MINUTES  
STN INTERNATIONAL SESSION SUSPENDED AT 15:45:17 ON 14 MAY 2009

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTAEXO1623

PASSWORD:

\* \* \* \* \* RECONNECTED TO STN INTERNATIONAL \* \* \* \* \*  
SESSION RESUMED IN FILE 'STNGUIDE' AT 15:47:39 ON 14 MAY 2009  
FILE 'STNGUIDE' ENTERED AT 15:47:39 ON 14 MAY 2009  
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	SINCE FILE	TOTAL
	ENTRY	SESSION
COST IN U.S. DOLLARS		
FULL ESTIMATED COST	0.07	21.56
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)		
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-2.46

=> file hcaplus

	SINCE FILE	TOTAL
	ENTRY	SESSION
COST IN U.S. DOLLARS		
FULL ESTIMATED COST	0.07	21.56
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)		
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-2.46

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=> s leucine or lysine or cysteine

```
      101829 LEUCINE
      120003 LYSINE
      119714 CYSTEINE
L10    299147 LEUCINE OR LYSINE OR CYSTEINE
```

=> s l5 and l10

```
L11          27 L5 AND L10
```

=> file stnguide

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	2.85	24.41
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-2.46

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FILE CONTAINS CURRENT INFORMATION.  
LAST RELOADED: May 11, 2009 (20090511/UP).

=> d l11 1-27 ti

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

```
L11 ANSWER 1 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
TI  Pharmaceutical compositions and method for treatment of chronic
    inflammatory diseases

L11 ANSWER 2 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
TI  Peptides and peptide mimetics to treat pathologies characterized by an
    inflammatory response

L11 ANSWER 3 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
TI  Use of lipid conjugates in the treatment of infection

L11 ANSWER 4 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
TI  Design of modified glycosaminoglycan-binding chemokines and
    other proteins for the treatment of inflammatory diseases

L11 ANSWER 5 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
TI  Methods for differentiating stem cells using a self-replicating
    neocentromeric artificial chromosome with chromatin domains expressing
```

transgenes for gene therapy

- L11 ANSWER 6 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Polymer-modified bioactive synthetic chemokines, and methods for their manufacture and therapeutic use
- L11 ANSWER 7 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Compositions treatment of chronic inflammatory diseases
- L11 ANSWER 8 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Pharmaceutical compositions
- L11 ANSWER 9 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Gene expression profiles and biomarkers for the detection of lung disease-related and other disease-related gene transcripts in blood
- L11 ANSWER 10 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Gene expression profiles and biomarkers for the detection of depression-related and other disease-related gene transcripts in blood
- L11 ANSWER 11 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Genes showing altered expression in lung cancer and their products and their use in diagnosis and treatment
- L11 ANSWER 12 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Human tissue-specific housekeeping genes identified by expression profiling
- L11 ANSWER 13 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Preparation of diaminothiadiaazole dioxides and monoxides as CXC- and CC-chemokine receptor ligands
- L11 ANSWER 14 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Preparation of amino acid derivatives in methods for the treatment of respiratory diseases and conditions with a selective iNOS inhibitor and a PDE inhibitor
- L11 ANSWER 15 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Novel antagonists of MCP proteins for treating inflammatory, autoimmune and vascular diseases
- L11 ANSWER 16 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Preparation of diaminocyclobutene-1,2-diones for combination treatments for chemokine-mediated diseases
- L11 ANSWER 17 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Modular biochip arrays and their diagnostic or analytical uses and their preparation and uses
- L11 ANSWER 18 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Genes that are differentially expressed during erythropoiesis and their diagnostic and therapeutic uses
- L11 ANSWER 19 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Gene markers useful for detecting skin damage in response to ultraviolet radiation
- L11 ANSWER 20 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Screening methods to identify compounds that modulate a gene expression response of a cell to ultraviolet radiation exposure

L11 ANSWER 21 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
 TI Modulation of airway responsiveness by anionic and cationic polyelectrolyte substances

L11 ANSWER 22 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
 TI Gene probes used for genetic profiling in healthcare screening and planning

L11 ANSWER 23 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
 TI Gene probes used for genetic profiling in healthcare screening and planning

L11 ANSWER 24 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
 TI Enhanced channelling of sulphate through a rapidly exchangeable sulphate pool in response to stimulated glycosaminoglycan synthesis in pancreatic epithelial cells

L11 ANSWER 25 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
 TI Polycations increase the efficiency of adenovirus-mediated gene transfer to epithelial and endothelial cells in vitro

L11 ANSWER 26 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
 TI Cationic proteins increase the permeability of cultured rabbit tracheal epithelial cells: Modification by heparin and extracellular calcium

L11 ANSWER 27 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
 TI Inhibition by salbutamol of the proliferation of human airway smooth muscle cells grown in culture

=> d l11 1 6 7 8 14 15 21 25 26 ti abs bib  
 YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

L11 ANSWER 1 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
 TI Pharmaceutical compositions and method for treatment of chronic inflammatory diseases

AB This invention defines novel compns. that can be used for clin. treatment of a class of chronic inflammatory diseases. Increased generation of carbonyl substances, namely aldehydes and ketones, occurs at sites of chronic inflammation and is common to the etiologies of all of the clin. disorders addressed herein. Such carbonyl substances are cytotoxic and addnl. serve to perpetuate and disseminate the inflammatory process. This invention defines use of compns., the orally administered required primary agents of which are primary amine derivs. of benzoic acid capable of covalently reacting with the carbonyl substances. P-Aminobenzoic acid is an example of the required primary agent of the present invention. PABA has a small mol. weight, is water-soluble, has a primary amine group which reacts with carbonyl-containing substances and is tolerated by the body in relatively high dosages for extended periods. The method includes administration of a composition comprising: (1) an orally consumed therapeutically effective amount of at least one required primary agent; (2) at least one required previously known medicament co-agent recognized as effective to treat a chronic inflammatory disease addressed herein administered to the mammalian subject via the oral route; and (3) one or more addnl. orally consumed required co-agent selected from the group consisting of antioxidants, vitamins, metabolites at risk of depletion,

sulfhydryl co-agents, co-agents which may facilitate glutathione activity and nonabsorbable primary amine polymeric co-agents; so as to-produce an additive or synergistic physiol. effect of an anti-inflammatory nature.

AN 2008:1156137 HCAPLUS <<LOGINID::20090514>>

DN 149:409732

TI Pharmaceutical compositions and method for treatment of chronic inflammatory diseases

IN Shapiro, Howard K.

PA USA

SO U.S. Pat. Appl. Publ., 35pp., Cont.-in-part of U.S. Ser. No. 924,945.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20080234380	A1	20080925	US 2008-70518	20080220 <--
	US 20050090553	A1	20050428	US 2004-924945	20040824 <--
PRAI	US 1992-906909	B2	19920630	<--	
	US 1994-241603	B2	19940511	<--	
	US 1997-814291	B2	19970310	<--	
	US 2000-610073	B2	20000705	<--	
	US 2004-924945	A2	20040824		

L11 ANSWER 6 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN

TI Polymer-modified bioactive synthetic chemokines, and methods for their manufacture and therapeutic use

AB The invention relates to polymer-modified bioactive synthetic chemokines and to methods for their production and use. The bioactive synthetic chemokines of the invention comprises a polymer modified polypeptide chemokine backbone. The compds. and methods of the invention are useful for the treatment of disorders involving naturally occurring chemokines, such as for the treatment of HIV and AIDS related disorders and for the treatment of asthma, allergic rhinitis, atopic dermatitis, atheroma/atherosclerosis, organ transplant rejection, and rheumatoid arthritis (no data). Thus, solid-phase peptide synthesis was used to prepare an N- and a C-terminal fragment of Rantes. A thioester-generating resin was used for the N-terminal peptide and a standard phenylacetamidomethyl resin for the C-terminal peptide. Full-length (modified) Rantes peptides were produced by natural chemical ligation of the two fragments. Rantes derivs. with a fatty acyl group attached to the N-terminus or to a lysine side chain, as well as such derivs. containing nonnatural amino acids at various positions in the peptide chain, were prepared and tested for their ability to inhibit HIV envelope-mediated cell fusion and viral infection of a cell line.

AN 2005:370952 HCAPLUS <<LOGINID::20090514>>

DN 142:435737

TI Polymer-modified bioactive synthetic chemokines, and methods for their manufacture and therapeutic use

IN Bradburne, James A.; Kochendoerfer, Gerd G.; Wilken, Jill G.

PA USA

SO U.S. Pat. Appl. Publ., 83 pp., Cont.-in-part of U.S. Provisional Ser. No. 217,683.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20050089970	A1	20050428	US 2003-332039	20030106 <--
	WO 2002004015	A1	20020117	WO 2001-US21933	20010712 <--

WO 2002004015 A9 20030807

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,  
DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ,  
LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL,  
PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US,  
UZ, VN, YU, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG,  
KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR,  
IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN,  
GW, ML, MR, NE, SN, TD, TG

JP 2007302667 A 20071122 JP 2007-125054 20070509 <--  
PRAI US 2000-217683P P 20000712 <--  
WO 2001-US21933 W 20010712 <--  
JP 2002-508469 A3 20010712 <--

L11 ANSWER 7 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN

TI Compositions treatment of chronic inflammatory diseases

AB This invention defines novel compns. that can be used for clin. treatment of a class of chronic inflammatory diseases. Increased generation of carbonyl substances, aldehydes and ketones, occurs at sites of chronic inflammation and is common to the etiologies of all of the clin. disorders addressed herein. Such carbonyl substances are cytotoxic and addnl. serve to perpetuate and disseminate the inflammatory process. This invention defines use of compns., the orally administered required primary agents of which are primary amine derivs. of benzoic acid capable of reacting with the carbonyl substances. P-Aminobenzoic acid (or PABA) is an example of the required primary agent of the present invention. PABA has a small mol. weight, is water soluble, has a primary amine group which reacts with carbonyl-containing substances and is tolerated by the body in relatively high dosages for extended periods. The method of the present invention includes administration of a composition comprising: (1) an orally consumed primary agent; (2) a previously known medicament co-agent recognized as effective to treat a chronic inflammatory disease addressed herein administered to the mammalian subject via the oral route, other systemic routes of administration or via the topical route; and (3) optionally 1 or more addnl. orally consumed co-agent selected from the group consisting of antioxidants, vitamins, metabolites at risk of depletion, sulfhydryl co-agents, co-agents which may facilitate glutathione activity and nonabsorbable primary amine polymeric co-agents, so as to produce an additive or synergistic physiol. effect of an anti-inflammatory nature.

AN 2005:369133 HCAPLUS <<LOGINID::20090514>>

DN 142:435774

TI Compositions treatment of chronic inflammatory diseases

IN Shapiro, Howard K.

PA USA

SO U.S. Pat. Appl. Publ., 44 pp., Cont.-in-part of U.S. Ser. No. 610,073, abandoned.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 5

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20050090553	A1	20050428	US 2004-924945	20040824 <--
	US 20080234380	A1	20080925	US 2008-70518	20080220 <--
PRAI	US 1992-906909	B2	19920630	<--	
	US 1994-241603	B2	19940511	<--	
	US 1997-814291	B2	19970310	<--	
	US 2000-610073	B2	20000705	<--	
	US 2004-924945	A2	20040824		
OS	MARPAT 142:435774				

L11 ANSWER 8 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN

TI Pharmaceutical compositions

AB The present invention relates to pharmaceutical compns. which are useful in the treatment of diseases where excess mucus is present in the respiratory tract, such as cystic fibrosis and chronic obstructive pulmonary disease  
. In particular, the invention relates to pharmaceutical compns. for administration by pulmonary inhalation. Thus, in a first aspect of the present invention, a composition for assisting mucus clearance is provided, the composition comprising one or more mucoactive agents for reducing crosslinking within the mucus; for diluting the mucus; and/or for digesting naked DNA and cell debris within the mucus. Preferably, the composition according to the invention further has the effect of reducing inflammation. In one embodiment of the present invention, the composition comprises one or more mucoactive agents together with an addnl. active agent such as an anti-inflammatory agent. In a particularly preferred embodiment of the present invention, the mucoactive agent for reducing crosslinking is a glycosaminoglycan such as heparin. A further group of mucoactive agents capable of assisting mucus clearance are amino acids. Acetylcysteine (NAC) and the acetylcysteine salt derivative Nacystelyn (or NAL) are also effective mucoactive agents which are suitable for inclusion in the compns. of the present invention.

AN 2005:259852 HCAPLUS <<LOGINID::20090514>>

DN 142:329858

TI Pharmaceutical compositions

IN Morton, David; Ganderton, David; Staniforth, John; Kamlag, Yorick

PA Vectura Limited, UK

SO PCT Int. Appl., 60 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 2005025540	A2	20050324	WO 2004-GB3932	20040915 <--
	WO 2005025540	A3	20050616		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2004271778	A1	20050324	AU 2004-271778	20040915 <--
	CA 2538399	A1	20050324	CA 2004-2538399	20040915 <--
	EP 1663151	A2	20060607	EP 2004-768478	20040915 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	BR 2004014425	A	20061114	BR 2004-14425	20040915 <--
	CN 1874757	A	20061206	CN 2004-80032679	20040915 <--
	JP 2007505830	T	20070315	JP 2006-525902	20040915 <--
	SG 146649	A1	20081030	SG 2008-6902	20040915 <--
	KR 2006082865	A	20060719	KR 2006-705166	20060314 <--
	MX 2006002952	A	20060920	MX 2006-2952	20060315 <--
	ZA 2006002748	A	20070530	ZA 2006-2748	20060404 <--
	IN 2006CN01269	A	20070629	IN 2006-CN1269	20060413 <--

US 20070065373 A1 20070322 US 2006-571184 20060717 <--  
 PRAI GB 2003-21611 A 20030915 <--  
 GB 2003-27723 A 20031128 <--  
 WO 2004-GB3932 W 20040915

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 14 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
 TI Preparation of amino acid derivatives in methods for  
 the treatment of respiratory diseases and conditions with a selective iNOS  
 inhibitor and a PDE inhibitor  
 AB The invention claims a combination of an iNOS blocker and a  
 phosphodiesterase (PDE) inhibitor or their pharmaceutically-acceptable  
 salts or prodrugs for the prevention and treatment of respiratory diseases  
 or conditions. The iNOS inhibitors include amino acids  
 HN:CM<sub>2</sub>NHCH<sub>2</sub>CHRSCH<sub>2</sub>CH(NH<sub>2</sub>)CO<sub>2</sub>H (R = alkyl, cycloalkyl, hydroxyalkyl, or  
 haloalkyl). Thus, 2S-amino-6-[(1-iminoethyl)amino]-N-(1H-tetrazol-5-  
 yl)hexanamide dihydrochloride (NN) was prepared and shown to be a more  
 potent i-NOS inhibitor (IC<sub>50</sub> = 21.4 μM) than  
 2S-amino-6-[(1-iminoethyl)amino]hexanamide (NIL amide) or NIL  
 dimethylamide. NN is a nicely crystalline product, in contrast to NIL which is  
 a glass and thus difficult to handle.  
 AN 2003:931174 HCAPLUS <<LOGINID::20090514>>  
 DN 140:16957  
 TI Preparation of amino acid derivatives in methods for  
 the treatment of respiratory diseases and conditions with a selective iNOS  
 inhibitor and a PDE inhibitor  
 IN Manning, Pamela T.  
 PA Pharmacia Corporation, USA  
 SO PCT Int. Appl., 245 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003097050	A2	20031127	WO 2003-US15464	20030516 <--
	WO 2003097050	A3	20040617		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	CA 2484654	A1	20031127	CA 2003-2484654	20030516 <--
	AU 2003232148	A1	20031202	AU 2003-232148	20030516 <--
	US 20040087653	A1	20040506	US 2003-439679	20030516 <--
	EP 1505972	A2	20050216	EP 2003-753056	20030516 <--
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
	BR 2003010061	A	20050301	BR 2003-10061	20030516 <--
	JP 2005532321	T	20051027	JP 2004-505049	20030516 <--
	MX 2004011335	A	20050701	MX 2004-11335	20041115 <--
PRAI	US 2002-381056P	P	20020516	<--	
	WO 2003-US15464	W	20030516	<--	
OS	MARPAT 140:16957				

RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD



## ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 15 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
 TI Novel antagonists of MCP proteins for treating inflammatory, autoimmune and vascular diseases  
 AB Novel antagonists of MCP proteins, in particular of MCP-1 protein, can be obtained by generating MCP mutants whose GAG binding site, located at the N-terminal of MCP proteins, is eliminated following non-conservative substitutions. Compds. prepared in accordance with the present invention can be used in the treatment or prevention of diseases related to an undesirable activity of MCP proteins such, such as inflammatory disease, autoimmune diseases, vascular diseases, and cancer. MCP-1WT\*2A, human mature MCP-1 with isoleucine substituted for the methionine at position 64 and two alanines replacing the arginine and lysine at positions 18 and 19, was prepared in Escherichia coli. The mutant protein showed protective activity in animal models of delayed contact hypersensitivity, lung fibrosis, lung inflammation, and asthma.  
 AN 2003:818453 HCAPLUS <<LOGINID::20090514>>  
 DN 139:302042  
 TI Novel antagonists of MCP proteins for treating inflammatory, autoimmune and vascular diseases  
 IN Proudfoot, Amanda; Kosco-Vilbois, Marie; Handel, Tracy  
 PA Applied Research Systems Ars Holding N.V., Neth. Antilles  
 SO PCT Int. Appl., 71 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003084993	A1	20031016	WO 2003-EP50097	20030409 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2509767	A1	20031016	CA 2003-2509767	20030409 <--
	AU 2003240765	A1	20031020	AU 2003-240765	20030409 <--
	EP 1495050	A1	20050112	EP 2003-730178	20030409 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	BR 2003009238	A	20050215	BR 2003-9238	20030409 <--
	CN 1665839	A	20050907	CN 2003-813007	20030409 <--
	JP 2006505243	T	20060216	JP 2003-582187	20030409 <--
	NO 2004004850	A	20041209	NO 2004-4850	20041108 <--
	ZA 2004009062	A	20051109	ZA 2004-9062	20041109 <--
	US 20070004906	A1	20070104	US 2005-510658	20050518 <--
	US 7425324	B2	20080916		
PRAI	US 2002-371442P	P	20020410	<--	
	WO 2003-EP50097	W	20030409	<--	

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 21 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN  
 TI Modulation of airway responsiveness by anionic and cationic polyelectrolyte substances

AB To elucidate the effects of anionic and cationic polyelectrolyte substance on bronchoconstriction, we examined the serial changes in respiratory resistance (Rrs) in ovalbumin-sensitized guinea pigs after antigen exposure with or without preinhalation of low-mol.-weight heparin, poly-l-glutamic acid, poly-l-lysine and dextran with or without oral intake of dalteparin. Both immediate and late responses after antigen exposure were significantly decreased after pretreatment with inhaled low-mol.-weight heparin and poly-l-glutamic acid compared with saline alone. The late response was significantly decreased after pretreatment with oral dalteparin. Both low-mol.-weight heparin and poly-l-glutamic acid significantly decreased the airway response to methacholine in sensitized guinea pigs. In sensitized guinea pigs, the airway response to methacholine was significantly increased after pretreatment with inhaled poly-l-lysine. Pretreatment with inhaled low-mol.-weight heparin before poly-l-lysine exposure significantly suppressed the airway hyperresponsiveness after inhaled poly-l-lysine. These findings indicated that the "cationic-anionic interaction" plays an important role in airway responsiveness.

AN 2002:2418 HCAPLUS <<LOGINID::20090514>>

DN 136:338615

TI Modulation of airway responsiveness by anionic and cationic polyelectrolyte substances

AU Yahata, Tomoyuki; Nishimura, Yoshihiro; Maeda, Hitoshi; Yokoyama, Mitsuhiro

CS Department of Internal Medicine, Division of Cardiovascular and Respiratory Medicine, Kobe University Graduate School of Medicine, Kobe, Chuo-ku, 650-0017, Japan

SO European Journal of Pharmacology (2002), 434(1-2), 71-79  
CODEN: EJPHAZ; ISSN: 0014-2999

PB Elsevier Science B.V.

DT Journal

LA English

RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 25 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN

TI Polycations increase the efficiency of adenovirus-mediated gene transfer to epithelial and endothelial cells in vitro

AB Recombinant adenoviruses are being developed for gene therapy for cystic fibrosis and other lung diseases, and for prevention and treatment of vascular thrombosis. A major limitation to the clin. utility of adenoviruses is the low efficiency of gene transfer achieved in vivo. In addition, little is known about the initial interactions between adenoviruses and the target cell. To address the hypothesis that the neg. charge presented by membrane glycoproteins reduces the efficiency of adenovirus-mediated gene transfer, primary cultures of human airway, Madin-Darby canine kidney cells, an immortalized cystic fibrosis airway epithelial cell line, and primary cultures of sheep pulmonary artery endothelium were infected with recombinant adenovirus containing the E. coli lacZ reporter gene (Ad2 $\beta$ gal2) in the presence of various polyions. For each cell type, adsorption of Ad2 $\beta$ gal2 in the presence of the polycations polybrene, protamine, DEAE-dextran, and poly-L-lysine significantly increased the percentage of cells that express lacZ. The polyanion heparin did not significantly alter gene transfer efficiency, but completely abrogated the effects of polycations. These data provide evidence that neg. charged moieties on the cell surface reduce the efficiency of adenovirus-mediated gene transfer, and that alteration of the charge interaction between adenoviruses and the cell surface may improve the potential clin. application of these vectors.

AN 1997:82048 HCAPLUS <<LOGINID::20090514>>

DN 126:195011

OREF 126:37511a,37514a

TI Polycations increase the efficiency of adenovirus-mediated gene transfer to epithelial and endothelial cells in vitro

AU Arcasoy, S. M.; Latoche, J. D.; Gondor, M.; Pitt, B. R.; Pilewski, J. M.

CS Dep. Med., Univ. Pittsburgh Sch. Med., Pittsburgh, PA, USA

SO Gene Therapy (1997), 4(1), 32-38

CODEN: GETHEC; ISSN: 0969-7128

PB Stockton

DT Journal

LA English

L11 ANSWER 26 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN

TI Cationic proteins increase the permeability of cultured rabbit tracheal epithelial cells: Modification by heparin and extracellular calcium

AB Airway inflammation is a consistent finding in asthma, and increased amts. of eosinophil-derived cationic proteins are present in bronchoalveolar lavage fluid from asthmatic subjects. Tracheal instillation of a variety of naturally occurring and synthetic cationic proteins has been shown to induce airway hyperresponsiveness in animal models. Cationic proteins may alter the barrier function of airway epithelium, allowing increased access of agonists to underlying nerves and airway smooth muscle. To examine the effect of cationic proteins on airway epithelial cell function, rabbit tracheal epithelial cells were isolated and cultured on collagen-coated filter membranes. Both apical and basolateral exposure of the cell cultures to poly-L-lysine and poly-L-arginine decreased transepithelial elec. resistance (Rt) over 60 min. There were no discernable light microscopic changes in the morphol. of the cultures at 60 min after poly-L-lysine exposure, but permeability to mannitol was increased compared to controls. Evidence for the critical role of cationic charge included the following observations: (1) Poly-L-aspartate, an anionic polyamino acid, had no significant effect on Rt, and (2) the addition of heparin prior to the addition of poly-L-lysine blocked the reduction in Rt. Furthermore, when applied after poly-L-lysine addition, heparin reversed the decrease in Rt in a time-dependent fashion. Increasing the [Ca<sup>2+</sup>] in the medium from 1 to 10 mM resulted in attenuation of the response to polycation addition. Cationic proteins may alter the barrier properties of airway epithelium and the cationic charge may be a crucial factor. This alteration is not an 'all-or-none' phenomenon, since subsequent addition of heparin resulted in a reversal of the effect. While the precise mechanisms responsible for these observations remain to be elucidated, cationic proteins may be modifying the interaction of extracellular calcium with tight junctions thereby resulting in increased permeability. The barrier function of the epithelium may be perturbed in asthma and a variety of other airway diseases through the presence of cationic proteins derived from inflammatory cells within the airway lumen and/or the subepithelium.

AN 1996:277186 HCAPLUS <<LOGINID::20090514>>

DN 124:332524

OREF 124:61409a,61412a

TI Cationic proteins increase the permeability of cultured rabbit tracheal epithelial cells: Modification by heparin and extracellular calcium

AU Uchida, Derek A.; Irvin, Charles G.; Ballowe, Clark; Larsen, Gary; Cott, Gary R.

CS School Medicine, University Colorado, Denver, CO, USA

SO Experimental Lung Research (1996), 22(1), 85-99

CODEN: EXLRDA; ISSN: 0190-2148

PB	Taylor & Francis
DT	Journal
LA	English